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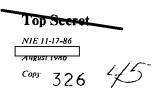
NIE 11-17-86

Soviet Chemical and Biological Warfare Program

APPROVED FOR RELEASE DATE: JUN 2004

National Intelligence Estimate

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NIE 11-17-86

SOVIET CHEMICAL AND BIOLOGICAL WARFARE PROGRAM

Information available as of 21 July 1986 was used in the preparation of this Estimate, approved for publication on 15 August 1986 by the National Foreign Intelligence Board.

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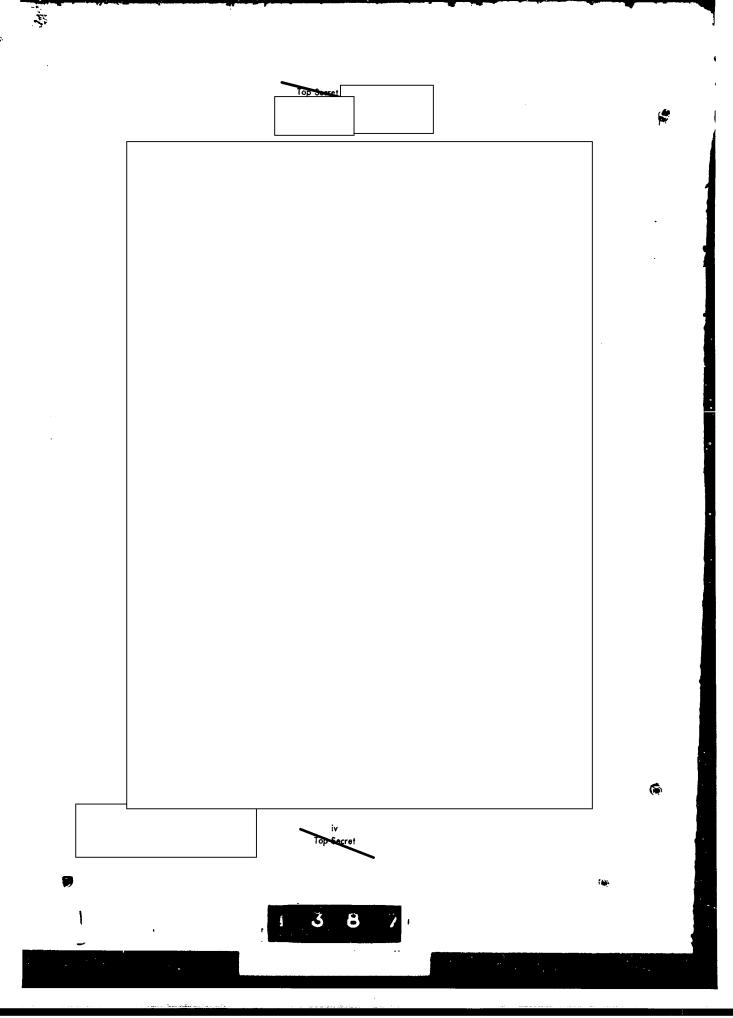
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KEY JUDGMENTS

The Soviets maintain the world's most comprehensive chemical and biological warfare program, and the Intelligence Community believes this capability constitutes a serious threat to NATO. We believe there is sufficient risk of Soviet use of chemical weapons that NATO must consider such use in all phases of a NATO-Warsaw Pact conflict, even from the outset, in the central region as well as on the flanks, against ships at sea and amphibious forces. We believe chemical warfare (CW) use in any circumstances would, however, be selective rather than massive in terms of the number and type of targets attacked.

In the early 1970s, the Soviets allocated almost \$2 billion on a program to overcome a perceived US lead in CBW and provide a new generation of CBW weapons to be fielded in the next decade, and it appears that the Soviets have maintained and expanded their BW effort.

The initial use of chemical weapons requires approval by the highest Soviet political authority. Evidence of Soviet planning for the use of chemical weapons in either the nuclear or nonnuclear phases of war is open to differing interpretations. We do believe that an initial decision to use chemical and toxin weapons would be based on an assessment of at least these factors: whether an enemy is capable of and willing to respond with nuclear escalation; whether an enemy is able to retaliate in kind; and the degree to which an enemy can protect its forces against and recover from a chemical attack. These factors would apply to any contemplated attack on NATO, whether in northern, central, or southern Europe.

The Community remains uncertain of the Soviet perception of NATO's threat to escalate to the use of nuclear weapons in response to chemical attacks, and, thus, cannot confidently predict how effective this would be in preventing the initiation of Soviet chemical attacks during the nonnuclear phase once war began:

— One view is that, although the Soviets probably would refrain from initiating CW if their nonnuclear offensive were proceeding satisfactorily, the possibility of selective use of CW would increase if they calculated that the benefits of such use significantly outweighed the risk of possible NATO nuclear escalation.



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- Another is that, once the threat of nuclear escalation has failed to deter war, it would not deter the use of chemicals any more than it would deter the use of other nonnuclear weapons. Thus, chemical weapons would be used as necessary, limited only by normal military considerations of their utility.
- A third view holds that the dominant considerations would be the certainty of NATO chemical retaliation and the risk of nuclear escalation; consequently, the Soviets are unlikely to use chemical and toxin weapons against NATO, if at all, until a decision has been reached to use nuclear weapons.

if the war reached the nuclear phase, use of chemical and biological warfare (CBW) would be more likely because there could be situations where chemicals would be the weapon of choice.

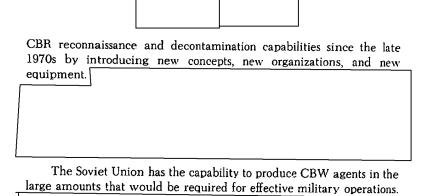
The Soviet Union has used chemical weapons in limited wars. They probably would do so in the future when it was to their military advantage against forces unable to protect their personnel, retaliate in kind, or escalate.

The Soviets have a significant capability to deliver a variety of chemical agents. Chemical munitions exist for aerial delivery and for nearly all Soviet artillery and tactical rocket and missile systems.

The chemical, biological, and radiological (CBR) protection specialists found in the Soviet armed forces constitute the largest such group in the world, with a peacetime manning of about 30,000 to 60,000 personnel in Ground Force chemical units and 2,000 to 3,000 in Air Force chemical protection sections. The Soviets have expanded their



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over 100 industrial microbiological plants in the Soviet Union, most doing clearly legitimate research to provide antibiotics, serums, and vaccines.

The program for the modernization of the Soviet CBW arsenal, which has been ongoing for more than a decade, has concentrated on exploiting advances in biotechnology such as genetic engineering. This

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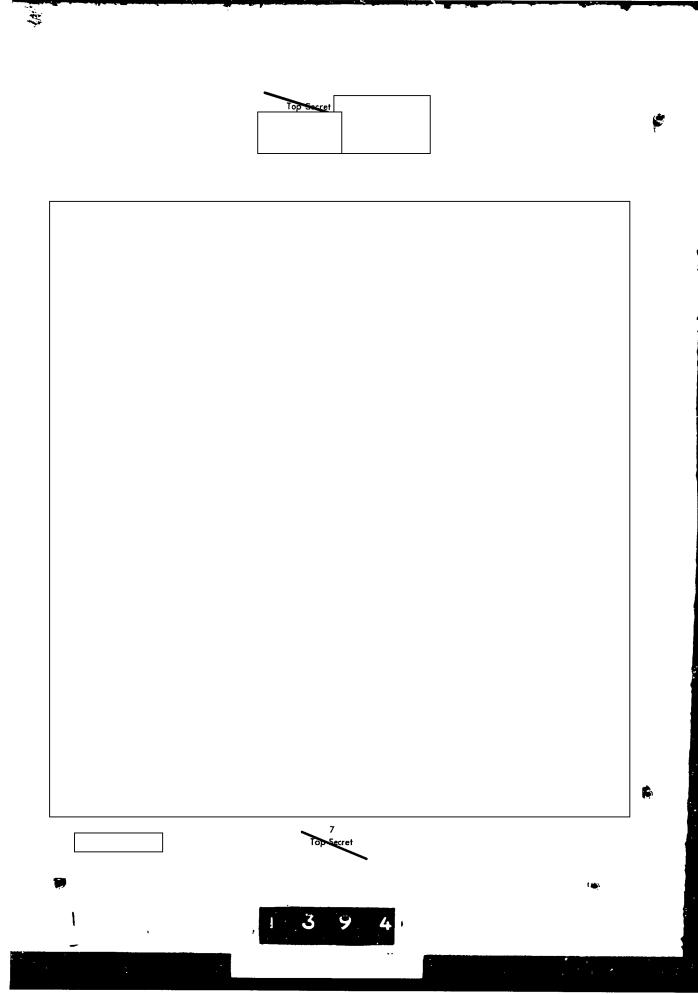
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may, in the next 10 years, result in the fielding of new agents (chemical, toxin, and biological) for which NATO has no means of detection, identification, protection, or treatment.

These Key Judgments are Secret

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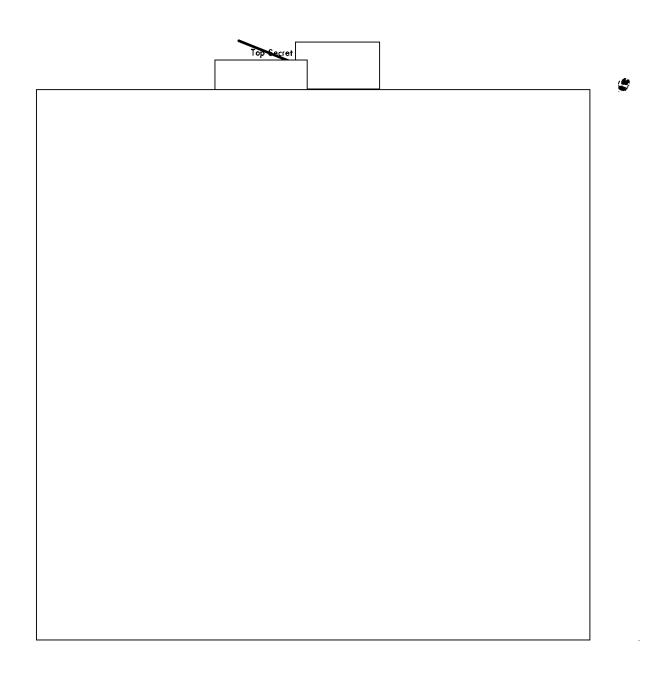
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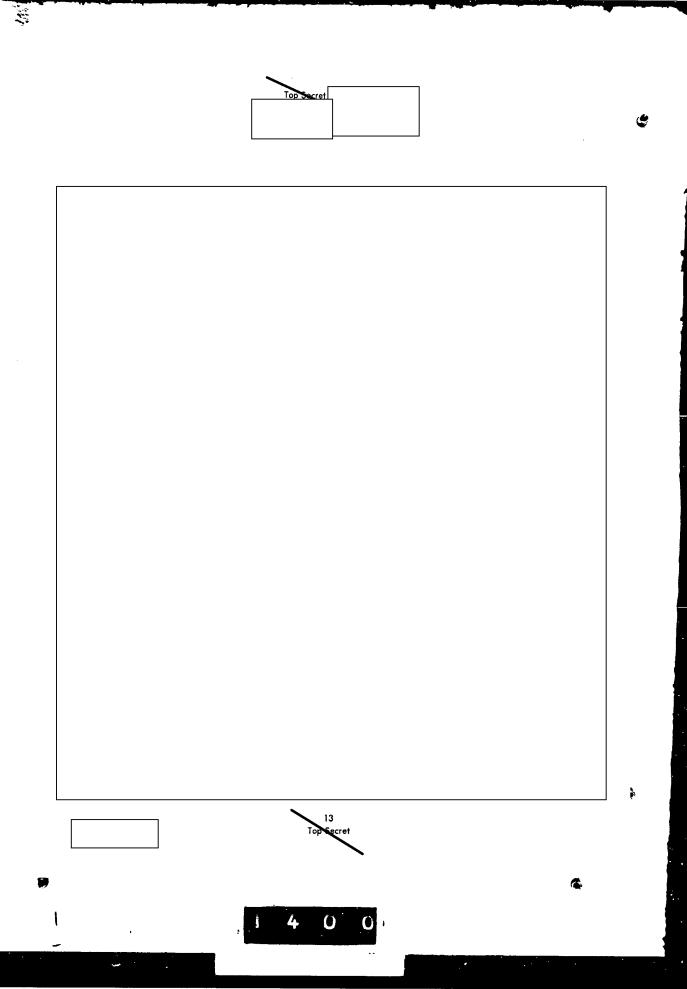


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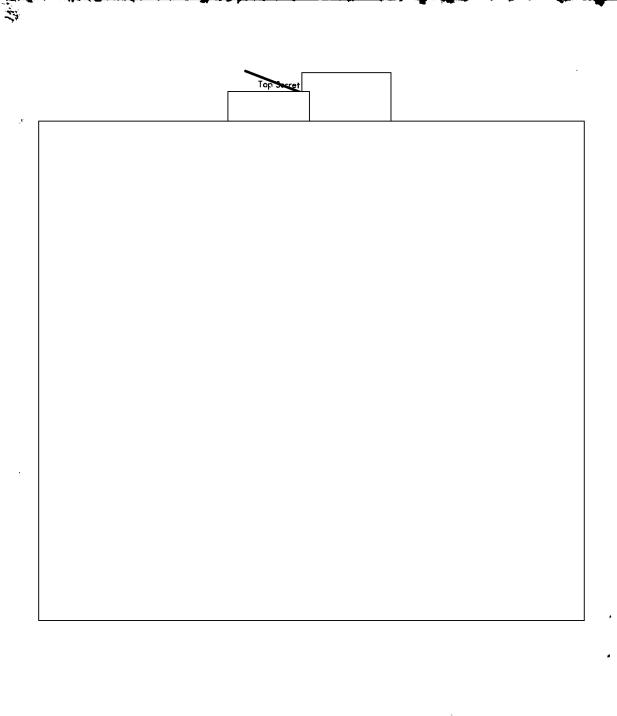
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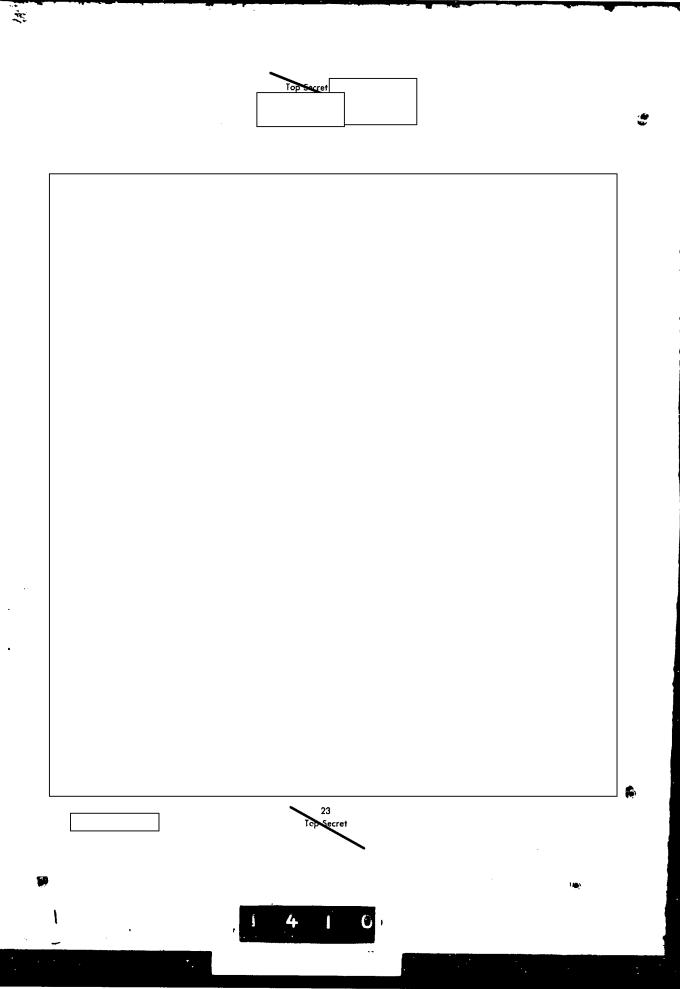


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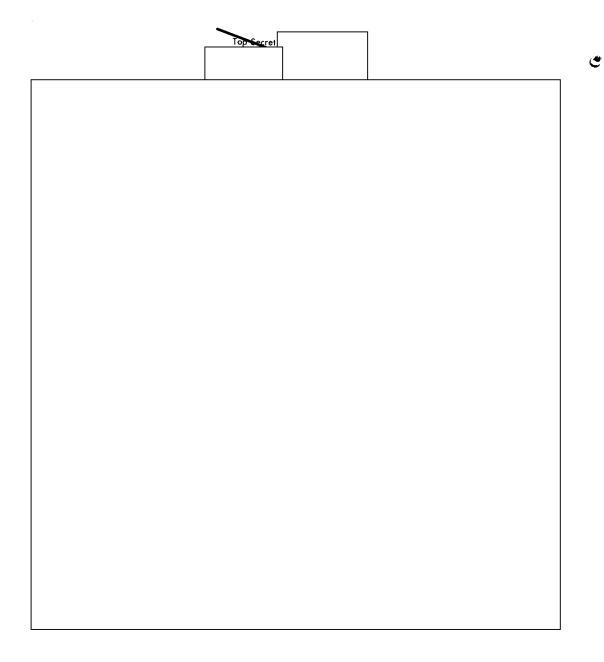
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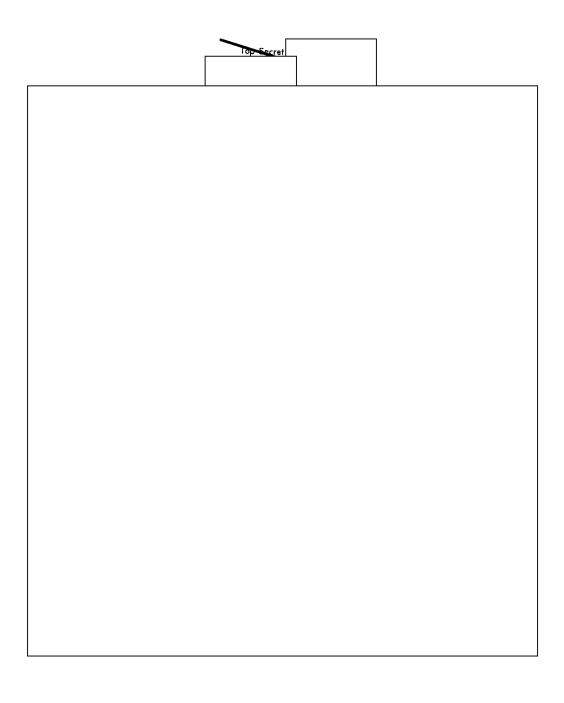
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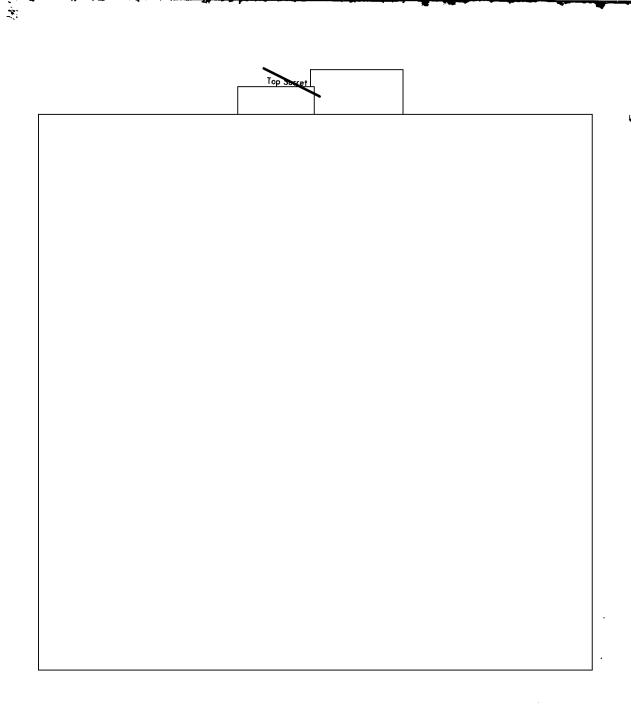
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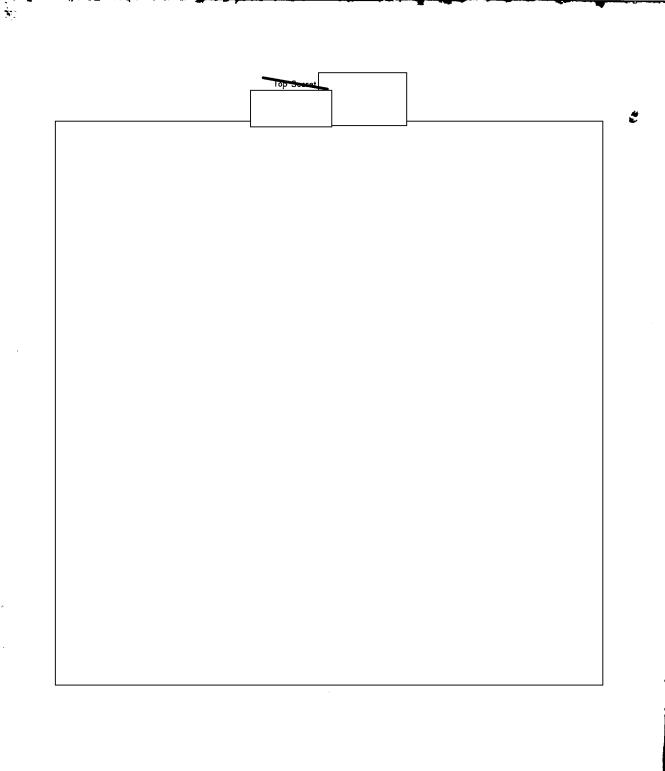
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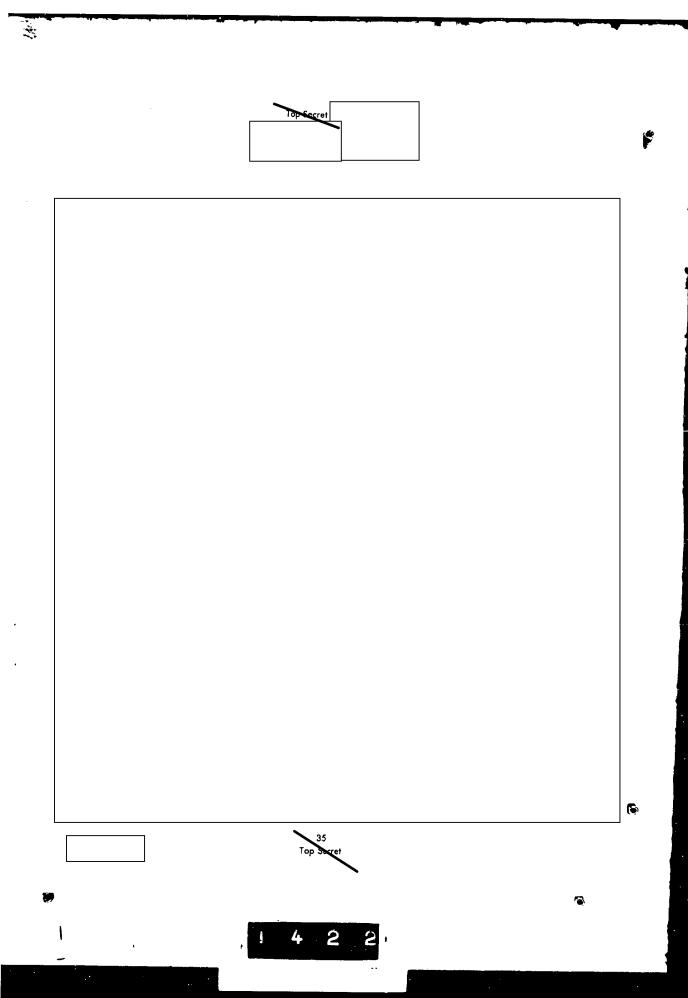
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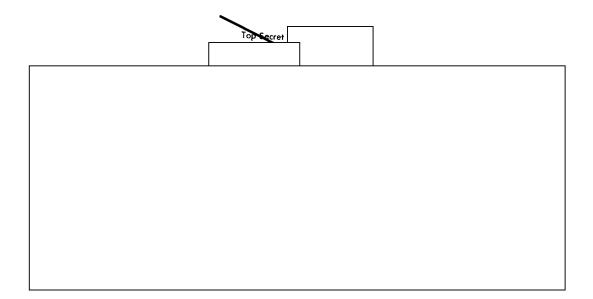
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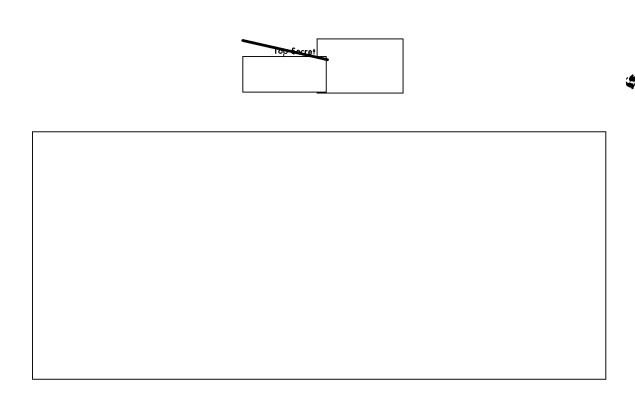
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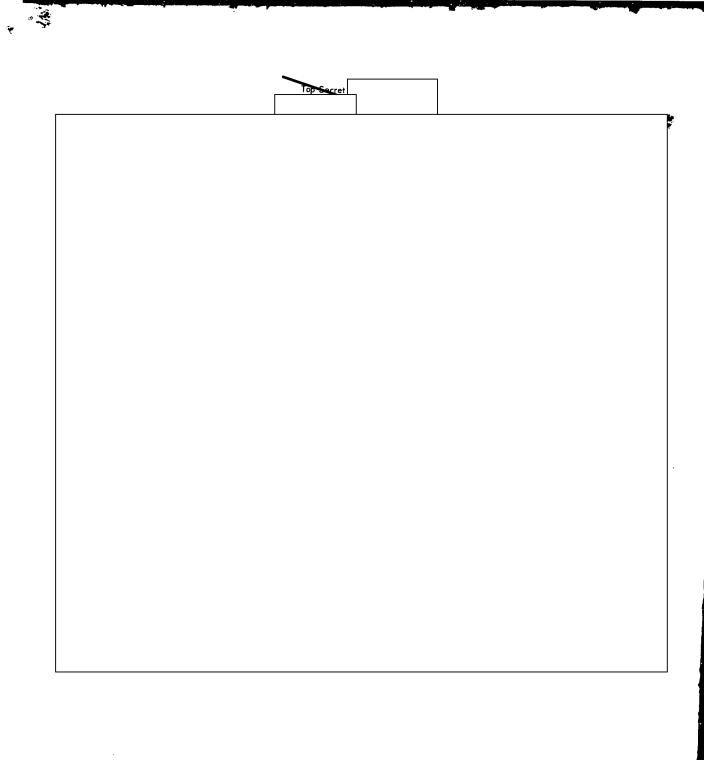
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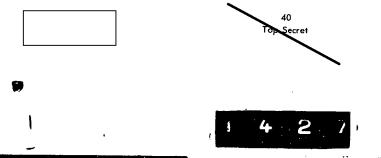


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